

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (previously presented): A method of processing analog color signals, the method comprising:

analog preprocessing sensor output signals to obtain analog preprocessed signals that cause a reduced amount of digital quantization errors;

converting the analog preprocessed signals into digital signals;

reconstructing a first basic color signal R, a second basic color signal G, and a third basic color signal B from the digital signals; and

correcting the basic color signals to obtain standardized signals, the correcting step comprising multiplication of a three color signal matrix containing the first, second and third basic color signals R, G, B by a correction matrix containing RGB matrix coefficients that depend on the analog preprocessing step.

Claim 2 (original): A method according to claim 1, wherein the analog preprocessing step includes a white balance adjustment.

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Claim 3 (original): A method according to claim 2, wherein the coefficients of the correction matrix depend on the analog preprocessing step in that correction matrix coefficients  $a_{xy}$  are replaced by coefficients  $b_{xy}$  with

$$b_{11} = a_{11}$$

$$b_{12} = a_{12} \times awbR$$

$$b_{13} = a_{13}$$

$$b_{21} = a_{21} / awbR$$

$$b_{22} = a_{22}$$

$$b_{23} = a_{23} / awbB$$

$$b_{31} = a_{31}$$

$$b_{32} = a_{32} \times awbB$$

$$b_{33} = a_{33}$$

wherein awbR equals a total contribution of Red divided by a total contribution of Green and awbB equals a total contribution of Blue divided by a total contribution of Green wherein the total contributions of Red, Green and Blue are determined from the standardized signals.

Claim 4 (original): A method according to claim 1, wherein the sensor output signals comprise first, second and third analog color signals  $R_a$ ,  $G_a$  and  $B_a$ , and wherein said analog preprocessing step includes respectively multiplying the color signals by

$$cR$$

$$cG$$

$$cB$$

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where  $cR = \sum R$  if  $\sum R > 1$ , else  $cR = 1$ ;

where  $cG = \sum G$  if  $\sum G > 1$  else  $cG = 1$ ;

where  $cB = \sum B$  if  $\sum B > 1$  else  $cB = 1$ , with

$$\sum R = a_{11} + a_{12} + a_{13}$$

$$\sum G = a_{21} + a_{22} + a_{23}$$

$$\sum B = a_{31} + a_{32} + a_{33}$$

with  $a_{xy}$  being the coefficients the correction matrix would have without the analog preprocessing step, and wherein the coefficients  $a_{xy}$  of the correction matrix are replaced by coefficients  $b_{xy}$  with

$$b_{1y} = a_{1y} / cR \text{ for } x = 1, 2, 3 \text{ and } y = 1;$$

$$b_{2y} = a_{2y} / cG \text{ for } x = 1, 2, 3 \text{ and } y = 2;$$

$$b_{3y} = a_{3y} / cB \text{ for } x = 1, 2, 3 \text{ and } y = 3.$$

Claim 5 (previously presented): A device for processing analog color signals, the device comprising:

means for analog preprocessing sensor output signals to obtain analog preprocessed signals that cause a reduced amount of digital quantization errors;

means for converting the analog preprocessed signals into digital signals;

means for reconstructing a first basic color signal R, a second basic color signal G, and a third basic color signal B from the digital signals; and

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means for correcting the basic color signals to obtain standardized signals, the correcting means comprising means for multiplying a three color signal matrix containing the first, second and third basic color signals R, G, B by a correction matrix containing RGB matrix coefficients that depend on the analog preprocessing means.

Claim 6 (previously presented): A device according to claim 5, wherein the analog preprocessing means includes means for carrying out a white balance adjustment.

Claim 7 (Currently Amended): A ~~method~~ device according to claim 6, wherein the coefficients of the correction matrix depend on the analog preprocessing step in that correction matrix coefficients  $a_{xy}$  are replaced by coefficients  $b_{xy}$  with

$$\begin{aligned}
 b_{11} &= a_{11} \\
 b_{12} &= a_{12} \times awbR \\
 b_{13} &= a_{13} \\
 b_{21} &= a_{21} / awbR \\
 b_{22} &= a_{22} \\
 b_{23} &= a_{23} / awbB \\
 b_{31} &= a_{31} \\
 b_{32} &= a_{32} \times awbB \\
 b_{33} &= a_{33}
 \end{aligned}
 \tag{6}$$

wherein awbR equals a total contribution of Red divided by a total contribution of Green and awbB equals a total contribution of Blue

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divided by a total contribution of Green wherein the total contributions of Red, Green and Blue are determined from the standardized signals.

Claim 8 (previously presented): A device according to claim 5, wherein the sensor output signals comprise first, second and third analog color signals  $R_a$ ,  $G_a$  and  $B_a$ , and wherein said analog preprocessing means includes means for respectively multiplying the color signals by

$$cR$$

$$cG$$

$$cB$$

where  $cR = \sum R$  if  $\sum R > 1$ , else  $cR = 1$ ;

where  $cG = \sum G$  if  $\sum G > 1$  else  $cG = 1$ ;

where  $cB = \sum B$  if  $\sum B > 1$  else  $cB = 1$ , with

$$\sum R = a_{11} + a_{12} + a_{13}$$

$$\sum G = a_{21} + a_{22} + a_{23}$$

$$\sum B = a_{31} + a_{32} + a_{33}$$

with  $a_{xy}$  being the coefficients the correction matrix would have without the analog preprocessing step, and wherein the coefficients  $a_{xy}$  of the correction matrix are replaced by coefficients  $b_{xy}$  with

$$b_{xy} = a_{xy} / cR \text{ for } x = 1, 2, 3 \text{ and } y = 1;$$

$$b_{xy} = a_{xy} / cG \text{ for } x = 1, 2, 3 \text{ and } y = 2;$$

$$b_{xy} = a_{xy} / cB \text{ for } x = 1, 2, 3 \text{ and } y = 3.$$

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Claim 9 (original): A color camera comprising:  
a sensor for generating sensor output signals; and  
a device as claimed in claim 5.

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